

1-7	At the completion of this unit, the paramedic student will be able to integrate pathophysiological principles of pharmacology and the assessment findings to formulate a field impression and implement a pharmacologic management plan.
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At the completion of this unit, the paramedic student will be able to:

- 1-7.1 Describe historical trends in pharmacology. (C-1)
- 1-7.2 Differentiate among the chemical, generic (nonproprietary), and trade (proprietary) names of a drug. (C-3)
- 1-7.3 List the four main sources of drug products. (C-1)
- 1-7.4 Describe how drugs are classified. (C-1)
- 1-7.5 List the authoritative sources for drug information. (C-1)
- 1-7.6 List legislative acts controlling drug use and abuse in the United States. (C-1)
- 1-7.7 Differentiate among Schedule I, II, III, IV, and V substances. (C-3)
- 1-7.8 List examples of substances in each schedule. (C-1)
- 1-7.9 Discuss standardization of drugs. (C-1)
- 1-7.10 Discuss investigational drugs, including the Food and Drug Administration (FDA) approval process and the FDA classifications for newly approved drugs. (C-1)
- 1-7.11 Discuss special consideration in drug treatment with regard to pregnant, pediatric and geriatric patients. (C-1)
- 1-7.12 Discuss the paramedic's responsibilities and scope of management pertinent to the administration of medications. (C-1)
- 1-7.13 Review the specific anatomy and physiology pertinent to pharmacology with additional attention to autonomic pharmacology. (C-1)
- 1-7.14 List and describe general properties of drugs. (C-1)
- 1-7.15 List and describe liquid and solid drug forms. (C-1)
- 1-7.16 List and differentiate routes of drug administration. (C-3)
- 1-7.17 Differentiate between enteral and parenteral routes of drug administration. (C-3)
- 1-7.18 Describe mechanisms of drug action. (C-1)
- 1-7.19 List and differentiate the phases of drug activity, including the pharmaceutical, pharmacokinetic, and pharmacodynamic phases. (C-3)
- 1-7.20 Describe the process called pharmacokinetics, pharmacodynamics, including theories of drug action, drug-response relationship, factors altering drug responses, predictable drug responses, iatrogenic drug responses, and unpredictable adverse drug responses. (C-1)
- 1-7.21 Differentiate among drug interactions. (C-3)
- 1-7.22 Discuss considerations for storing and securing medications. (C-1)
- 1-7.23 List the component of a drug profile by classification. (C-1)
- 1-7.24 List and describe drugs that the paramedic may administer according to local protocol. (C-1)
- 1-7.25 Integrate pathophysiological principles of pharmacology with patient assessment. (C-3)
- 1-7.26 Synthesize patient history information and assessment findings to form a field impression. (C-3)
- 1-7.27 Synthesize a field impression to implement a pharmacologic management plan. (C-3)
- 1-7.28 Assess the pathophysiology of a patient's condition by identifying classifications of drugs. (C-3)

At the completion of this unit, the paramedic student will be able to:

- 1-7.29 Serve as a model for obtaining a history by identifying classifications of drugs. (A-3)
1-7.30 Defend the administration of drugs by a paramedic to affect positive therapeutic affect. (A-3)

United States Department of Transportation
National Highway Traffic Safety Administration

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PSYCHOMOTOR OBJECTIVES

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- XIII. General properties of drugs
- A. Drugs do not confer any new functions on a tissue or organ in the body, they only modify existing functions
 - B. Drugs in general exert multiple actions rather than a single effect
 - C. Drug action results from a physiochemical interaction between the drug and a functionally important molecule in the body
 - D. Drugs that interact with a receptor to stimulate a response are known as agonists
 - E. Drugs that attach to a receptor but do not stimulate a response are called antagonists
 - F. Drugs that interact with a receptor to stimulate a response, but inhibit other responses are called partial agonists
 - G. Once administered, drugs go through four stages
 1. Absorption
 2. Distribution
 3. Metabolism
 4. Excretion

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- A. Theories of drug action - most drugs produce their effects by one of the following ways
1. Drug-receptor interaction
 - a. Agonists
 - b. Antagonists
 - c. Affinity
 - d. Efficacy
 - e. Types of receptors
 - (1) Beta₁
 - (2) Beta₂
 - (3) Alpha₁
 - (4) Alpha₂
 - (5) Dopaminergic

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